

DOCUMENT-IDENTIFIER: US 5958806 A

TITLE: Cardable hydrophobic polyolefin fibres comprising cationic spin finishes

BSPR: 2-1993

EP 0 557 024 A1 describes polyolefin fibres treated with an antistatic agent which is a neutralized phosphate salt, and optionally with a hydrophobic lubricant selected from mineral oils, paraffinic waxes, polyglycols and silicones, the fibres having an hydrostatic head value of at least 102 mm. WO 94/20664 describes a method for producing cardable, hydrophobic polyolefin-based staple fibres using two spin finishes, in which the second spin finish is a dispersion comprising an antistatic agent, preferably an anionic or non-ionic antistatic agent, and, as a hydrophobic agent, a natural or synthetic hydrocarbon wax or wax mixture, and optionally a silicone compound.

DOCUMENT-IDENTIFIER: US 5540953 A

TITLE: Process of preparing fabric comprising hydrophobic polyolefin fibers

BSPR:

Also according to this invention is provided a fiber comprising a polyolefin fiber having a finish comprising an antistatic composition which comprises: (a) at least one neutralized C._{sub.3} -C._{sub.12} alkyl or alkenyl phosphate alkali metal or alkali earth metal salt; and (b) a solubilizer, wherein the fiber having the finish is hydrophobic. Preferably, the alkyl or alkenyl group is a C._{sub.6} -C._{sub.12} alkyl group. More preferably, the alkyl or alkenyl group is a C._{sub.8} -C._{sub.12} alkyl group. Preferably, the neutralized alkyl phosphate salt is an alkali metal salt. Most preferably, the neutralized alkyl phosphate salt is an alkali metal salt selected from the group consisting of sodium and potassium salts, most preferably a potassium salt. Preferably, the fiber comprises about 0.1 to 1%, by dry weight of the fiber, of the finish and the fiber having the finish has a hydrostatic head value at least about 30 mm. More preferably, the fiber comprises polypropylene and the fiber having the finish has a hydrostatic head value at least about 62 mm.

DOCUMENT-IDENTIFIER: US 6117546 A

TITLE: Yarns containing linear low density polyethylene fibers

BSPR:

The linear low density polyethylene fibers can be crimped or uncrimped continuous filaments; crimped or uncrimped cut fibers, i.e., staple fibers, with lengths of about 3 to 150 millimeters, preferably about 5-150 mm, and most preferably about 25-50 mm, or discrete microfibers, i.e., melt-blown fibers.

The linear low density polyethylene fibers preferably have a denier of about 1-30, more preferably about 2-15, and most preferably about 2-6. In this specification the term "fibers" is meant to include all of the types of fibers and filaments described above. The fibers can contain up to about 20% by weight of other materials such as, for example, stabilizers, pigments, additives and polymers other than linear low density polyethylene. The fibers can have a nominal amount, for example, up to about 2% by weight, of a surface finish, which can be either hydrophilic or hydrophobic. Suitable finishes include, for example, phosphate ester antistatic finishes, ethoxylated fatty acid esters, and polydimethyl siloxanes. Such finishes are described, for example in U.S. Pat. No. 4,938,832 and published European patent applications 486158, 557024, and 516412, the disclosures of which are incorporated by reference.

DOCUMENT-IDENTIFIER: US 5545481 A
TITLE: Polyolefin fiber

BSPR:

Also according to this invention is provided a fiber comprising a polyolefin fiber having a finish comprising an antistatic composition which comprises: (a) at least one neutralized C._{sub.3} -C._{sub.12} alkyl or alkenyl phosphate alkali metal or alkali earth metal salt; and (b) a solubilizer, wherein the fiber having the finish is hydrophobic. Preferably, the alkyl or alkenyl group is a C._{sub.6} -C._{sub.12} alkyl group. More preferably, the alkyl or alkenyl group is a C._{sub.8} -C._{sub.12} alkyl group. Preferably, the neutralized alkyl phosphate salt is an alkali metal salt. Most preferably, the neutralized alkyl phosphate salt is an alkali metal salt selected from the group consisting of sodium and potassium salts, most preferably a potassium salt. Preferably, the fiber comprises about 0.1 to 1 %, by dry weight of the fiber, of the finish and the fiber having the finish has a hydrostatic head value at least about 30 mm. More preferably, the fiber comprises polypropylene and the fiber having the finish has a hydrostatic head value at least about 62 mm.



DOCUMENT-IDENTIFIER: US 6008145 A

TITLE: Composition for the permanent hydrophilation of polyolefin fibres, use of the composition and fibres treated therewith

BSPR:

A process for hydrophilating polyolefin-fibre fleeces by applying an aqueous alkoxyolated surfactant composition to the surface of the fibres is known from EP-B 1-0 410 485, in which the composition either consists up to at least 80% of alkoxyolated triglycerides of C._{sub.}18 fatty acids, in which case the said triglycerides have a large proportion of alkoxyolated ricinolein or of alkoxyolated and hydrogenated ricinolein, or consists up to at least 80% of a mixture of alkoxyolated or alkoxyolated and hydrogenated ricinolein, a polyalkylene-modified water-soluble polydimethyl siloxane and an antistatic compound, in which case the said compound can be for example a neutralized phosphoric acid ester, an alkoxylated phosphate, a potassium salt, an ammonium salt or an alkoxyolated ammonium salt.

L Number	Hits	Search Text	DB	Time stamp
1	4126	((polyolefin or polyethylene or polypropylene) same (antistatic or (anti adj static)))	USPAT	2002/01/09 15:08
2	93	((polyolefin or polyethylene or polypropylene) same (antistatic or (anti adj static))) same (phosphate near2 (ester or salt))	USPAT	2002/01/09 15:18
3	246287	(fiber or filament or fibrous).ti,ab,bsum,clm.	USPAT	2002/01/09 15:11
4	50	((polyolefin or polyethylene or polypropylene) same (antistatic or (anti adj static))) same (phosphate near2 (ester or salt)) and ((fiber or filament or fibrous).ti,ab,bsum,clm.)	USPAT	2002/01/09 15:19
6	0	((polyolefin or polyethylene or polypropylene) same (antistatic or (anti adj static))) and ("4938832").PN)	USPAT; US-PGPUB	2002/01/09 15:17
7	0	("4938832").PN.) and (phosphate near2 (ester or salt))	USPAT	2002/01/09 15:18
5	1	("4938832").PN.	USPAT; US-PGPUB	2002/01/09 15:18
8	1	"0557024"	EPO; DERWENT	2002/01/09 15:21
9	1	("5958806").PN.	USPAT; US-PGPUB	2002/01/09 15:22
10	0	1993ep-0557024.ap,prai.	EPO; DERWENT	2002/01/09 15:23